

IN THE CLAIMS

Claims 1 – 27 (Cancelled).

28. (New) A method of nanofibres production from a polymer solution using electrostatic spinning in an electric field created by a potential difference between a charged electrode and a counter electrode, in which the polymer solution is for spinning into the electric field supplied by means of the surface of a rotating charged electrode which is by a part of its surface immersed in a polymer solution, wherein the polymer solution is supplied into the electric field for spinning using the surface of the rotating charged electrode which is created with a body elongated in a direction of the rotational axis of the charged electrode, which rotational axis is perpendicular to the movement direction of a device for nanofibres storage and together is parallel to the plane of this device, while on a part of the circumference of the charged electrode near to the counter electrode is a spinning surface created, from which the nanofibres formed by the action of the electric field from the conductive polymer solution are drifted towards the counter electrode and in front of the counter electrode the nanofibres are stored on a device for nanofibres storage and the nanofibres form a layer on the device for nanofibres storage by which is a high spinning capacity reached.

29. (New) A method as in claim 28, wherein the surface of the charged electrode is a cylinder.

30. (New) A method as in claim 28, wherein an air stream acts on nanofibres moving

in the space between the charged electrode and the counter electrode, which air stream is directed to promote drifting of the nanofibres away from the charged electrode.

31. (New) A method as in claim 30, wherein the nanofibres are by an air stream drift away towards the counter electrode before which they lay down onto the device for nanofibres storage and form a layer on it.

32. (New) A method as in claim 30, wherein the air stream is produced by sucking the air from the space between the electrodes into the space behind the counter electrode.

33. (New) A method as in claim 30, wherein the nanofibres are by the air stream deflected from their course towards the counter electrode and are led to the device for nanofibres storage pervious to air, onto which surface they are stored in a layer in a space out of reach of the electric field between the electrodes where they were produced.

34. (New) A method as in claim 33, wherein the air stream is produced by sucking of the air from the space between the electrodes into the space behind the device for nanofibres storage pervious to air.

35. (New) A method as in claim 30, wherein auxiliary drying air is supplied into the space between the charged electrode and the counter electrode.

36. (New) A method as in claim 35, wherein at least a part of the auxiliary drying air is drawn off the space in front of the device for nanofibres storage pervious to air without passing through the device for nanofibres storage.

37. (New) A method as in claim 30, wherein auxiliary drying air is heated before being supplied into the space between the charged electrode and the counter electrode.

38. (New) An electrostatic spinning device for nanofibres production from a polymer solution, comprising:

- a container for the polymer solution;

- a rotatable charged electrode that is rotatable about a rotational axis, said charged electrode having a body that is elongated in the direction of said rotational axis, said charged electrode being disposed so that during rotation of the charged electrode a first portion of said charged electrode is disposed in said container while a second portion of said charged electrode is disposed out of said container;

- a counter electrode disposed opposite said second portion of said charged electrode so as to create therebetween an electric field created by a potential difference between the second portion of said charged electrode and the counter electrode; and

- a device for nanofibres storage, said device for nanofibres storage being movable in a direction that is perpendicular to the direction of the axis of rotation of said charged electrode.

39. (New) A device as in claim 38, wherein the charged electrode is a cylinder.

40. (New) A device as in claim 39, wherein lugs and/or recesses are defined on the surface of the cylinder of the charged electrode.

41. (New) A device as in claim 38, wherein the charged electrode is a prism.

42. (New) A device as in claim 38, wherein the counter electrode is configured to surround the entire length of the second portion of the charged electrode.

43. (New) A device as in claim 38, further comprising:

a vacuum source disposed in the space behind the device for nanofibres storage in regard to the charged electrode and serving to create an air stream directing out of the space between the electrodes and towards the device for nanofibres storage, and wherein the device for nanofibres storage is pervious to air.

44. (New) A device as in claim 38, wherein said device for nanofibres storage is pervious to air and disposed between said second portion of said charged electrode and said counter electrode.

45. (New) A device as in claim 38, further comprising:

a vacuum source disposed in the space behind the device for nanofibres storage in regard to the charged electrode and serving to create an air stream directing out of the space between the electrodes and towards the device for nanofibres storage; and

wherein said device for nanofibres storage is pervious to air and disposed outside of the space between the electrodes.

46. (New) A device as in claim 43, wherein the device for nanofibres storage is composed of a conveyor pervious to air.

47. (New) A device as in claim 43, wherein the device for nanofibres storage is composed of a plane supporting material of the nanofibres.

48. (New) A device as in claim 47, wherein the plane supporting material is positioned on a conveyance.

49. (New) A device as in claim 48, wherein the conveyance is composed of a counter electrode.

50. (New) A device as in claim 48, wherein the conveyance is composed of stretching elements of plane supporting material of the nanofibres.

51. (New) A device as in claim 43, further comprising:

an air inlet configured and disposed to direct auxiliary drying air into the space between the electrodes.

52. (New) A device as in claim 51, further comprising:

an air heating device positioned in the air inlet for auxiliary drying air.

53. (New) A device as in claim 51, wherein said air inlet is configured and disposed to direct auxiliary drying air into the space between the electrodes such that at least a part of the drying air is drawn off the space in front of the device for nanofibres storage in regard of the charged electrode, without passing through the device for nanofibres storage.